

REMARKS

Favorable reconsideration in view of the here with presented amendment and remarks is respectfully requested.

Claims 1 and 2-7 are pending in this application.

CLAIM REJECTIONS UNDER 35 USC §103

Claims 1 and 3-6 are rejected under 35 U.S.C. §103 as being unpatentable over U.S. 4,630,983 to Fisher ("Fisher") in view of U.S. 5,850,676 to Takahashi et al. ("Takahashi").

Claim 7 is rejected under 35 U.S.C. §103 as being unpatentable over Fisher in view of Takahashi, as applied to claim 6 above, further in view of U.S. 3,962,775 to King, Jr. ("King").

Applicant respectfully traverses both of these rejections.

The claims have been amended such that claim 1 now includes the feature that the assemblies of a peg and of a sleeve [...] are intended to be push-fitted "simultaneously" one into the other [...]. This limitation is supported in the application description on page 1.

The Fisher patent discloses an expansion pin consisting of a shank which at one end is provided with means for securing articles and at the other end is provided with a point. The shank has an aperture in the form of a slot in which there is inserted a plastically and/or resiliently deformable insert which thickens the shank of the expansion pin in the region of the slot. This expansion pin is especially dedicated to securing articles to a piece of masonry (col. 3, l. 34-46). The expanding region allows the article to be retained even if the drilled hole should become wider (col. 1, l. 52-54).

The Fisher patent expansion pin is a special type of **nail**, which is driven into a hole, drilled through the article and the masonry (col. 3, l. 67), by means of strong hammer blows (Col. 1, l. 44).

The Examiner alleges that Fisher discloses a peg (1-5). This is true, a pin being a type of peg. However, present claim 1 more precisely applies to a “peg [...] of an inertial unit [or] a rack”. Therefore, the peg of this invention is part of an inertial unit or of a rack, whereas the peg of Fisher is just a nail to be hammered into a hole, having a head for securing an article.

The Examiner further alleges that Fisher discloses an inertial unit (12) (having a sleeve (13) and a rack (11)). Applicant wonders what type of an inertial unit can be a piece of masonry (12) or a wooden lath (11). Besides, Applicant wonders what type of a rack (for an inertial unit) can be a piece of masonry (12) or a wooden lath (11). These elements are not found in a craft for supporting an inertial unit.

The Examiner still further alleges that Fisher discloses that the peg (1-5) comprises an anterior portion (5) that is introduced, with clearance, into a sleeve of the component. A posterior fixing part is inserted in the sleeve without clearance. While this is true, it must be considered in light of the above reservations.

It is asserted by the Examiner that Fisher discloses that the posterior fixing part is designed to compensate for clearance and has a diameter greater than a diameter of the sleeve. This is correct if considered out of context. Indeed, the invention relates to a plurality of assemblies of a peg and of a sleeve, the clearance existing to allow the simultaneous insertion of the pegs into the sleeve (p. 1, l. 37- p. 2, l. 1, 2), because it is practically impossible to make the peg-sleeve assemblies respectively coaxial simultaneously (p.2, l. 10-12), for fixing the inertial unit to the rack by simultaneously push-fitting the pegs into the sleeves (claim 1). Fisher relates to anchoring to secure an article, by a clamping action (col. 1, l. 50-54). The application, as well as the objective, are completely different:

The description in the present application notes that the inertial unit is locked in terms of translation in the direction of the pegs by a locking system that is independent of the pegs (p. 1, l. 21-24; p. 5, l. 19-22). It can be inferred from that statement that the peg-sleeve assemblies' function is to fix the unit to the rack, except in the translation direction, that is to say it is partial fixing function or positioning function. On the contrary, the Fisher pin's function is to clamp the article to the piece of masonry, that is to say to fix it in translation, by means of a very strong compression pressure which wedges the limbs of the expansion pin against the wall of the drilled hole (col. 3, l. 61-63).

Fisher shows only one assembly of a peg and sleeve, not a plurality, as claimed herein. Indeed, the present invention solves the problem raised by this plurality of pegs having to be inserted simultaneously into sleeves in order to fix an inertial unit to a rack. Again, the field of the invention (fixing an inertial unit to a rack) is completely different from Fisher's (clamping an article to a piece of masonry).

Furthermore, the Examiner seems to have not considered the following part of claim 1: which are intended to be push-fitted one into the other to fix the inertial unit to the rack. This is also primordial in claim 1, because it distinguishes again the claimed invention over Fisher (and, as we will see below, over Takahashi). The invention has been made to solve the problem of simultaneous insertion of a plurality of pegs into corresponding sleeves, a clearance being necessary to achieve that action.

As noted above, Applicant has added, into claim 1, the limitation precisifying that the pegs and sleeves are intended to be push-fitted *simultaneously* one into the other, in order to distinguish again over the references cited.

With respect to Takahashi, Applicant notes that Takahashi discloses a clip, comprising a male member and a female member, the latter comprising elastic pieces, to connect two or more panels, the clip being arranged so that the elastic pieces are prevented from being deviated when deviating force is applied thereto. One can notice at that point that there is no link with the fixation of an inertial unit to a rack, with pegs and sleeves of the inertial unit and of the rack.

The Examiner asserts that Takahashi discloses a plurality of assemblies comprising an inertial unit, a rack, pegs and sleeves. Applicant disagrees. There is no allusion to an inertial unit and to rack, and Takahashi's clip is not suitable for fixing an inertial unit to a rack. Takahashi's clip applies to fixing two panels. This is achieved with a female member, introduced in both panels, and a male member, introduced into the female member in order to expand the elastic pieces of the female member whose surfaces engage the edge of the hole of a panel. This is not comparable with the assemblies of a peg and of a sleeve of an inertial unit and of a rack of the invention, wherein the pegs are part of one of the inertial unit and of the rack, and the sleeves are part of the other one. In Takahashi, both members are independent from the two pieces to be fixed.

The Examiner further asserts that Takahashi discloses using a plurality of peg and sleeve assemblies, as opposed to a single peg and sleeve to fasten one part to another creates a stronger connection. This is true. Everybody knows that two pieces are better fixed by a plurality of clips, but this is not the invention. This plurality of peg and sleeve assemblies of an inertial unit and a rack are a constraint to be dealt with, which forms the base of the problem being solved.

It is urged that one skilled in the art would not have been encouraged to make the invention in view of Takahashi. In this latter, the problem of manufacturing tolerances is solved by using an elongate hole (col. 3, l. 32), not a slotted peg. Anyway, it is not the same manufacturing tolerances problem, since in Takahashi, the pegs are not introduced simultaneously. As a matter of fact, the manufacturing tolerances problems are linked with misalignment of the holes, not misalignment of pegs and sleeves. In Takahashi, the “pegs” (male members or male and female members assemblies) are always aligned with the “sleeves” (female members or holes). Again, this is the holes which are not aligned, and they do not have any corresponding element in the invention.

Applicant responds to the Examiner’s Response to Arguments as follows.

Firstly, can a rack, which is defined as a support likely to possess fixing pegs, secured to a craft (such as an aircraft) equipped with an inertial unit, be compared to a wooden lath. Furthermore, Applicant notices that the Examiner proves that the lath may be a “support” for something (tiles, slates, ...); to compare Fisher to the claimed invention, that “something” should be an inertial unit, and anyways should, in Fisher, be the piece of masonry, which comprises a sleeve, not another element. There is only a rack and an inertial unit in the invention, while the Examiner introduces the piece of masonry, the wooden lath and something else (tiles, slates or plaster which, incidentally, are not described in Fisher).

Secondly, may an inertial unit, which is a known element, for example in an aircraft, be compared to a piece of masonry. The Examiner may have misunderstood what an inertial unit is in regard to this invention.

The Examiner can find definitions of an inertial unit in the description of the pending application.

p. 1, l. 17-24: an element of a craft or aircraft that is to be subjected to its movements.

p. 2, l. 19-29: an inertial unit makes “measurements. [It comprises] inertial sensors which, in real time, measure acceleration and rotation data which are then compiled in a mathematical model in order to deduce from this the position of the aircraft in space”.

One skilled in the art knows what an inertial unit is.

On www.granddictionnaire.com, the translation of inertial unit into French is “centrale inertielle”, which definition is (translated into English): an inertial unit is an electromagnetic and electronic assembly, comprising sensible measuring elements (accelerometers, rate gyros, ...) and computing means, capable to provide, at any time, position, speed and acceleration components of the craft it is installed on.

This is a known definition, and the quick definition recited in the description of the pending application reveals without any doubt that “inertial unit” designates the same object as the one defined by this known definition.

With respect to paragraph 10 of the action, Applicant notes that the limitation is not claimed because the peg can be part of the inertial unit or of the rack. Nevertheless, what is claimed is a plurality of assemblies of a peg and of a sleeve of an inertial unit and a rack, which means a peg of an inertial unit or a rack and a sleeve of the other one, which means the peg is part of either the inertial unit or the rack and the sleeve is part of either the rack or the inertial unit.

On the contrary, in Fisher, the pin is a nail, which is part of none of the pieces. This nail is to be introduced individually, so the problem issued by push-fitting simultaneously a plurality of sleeves does not exist.

Based on the comments in paragraph 12, it seems that the Examiner may not have understood the arguments made by Applicant.

The function cannot be reduced to just compensating for a clearance.

In Fisher, the function of the pin is to compensate for the clearance in a hole in order to assure clamping of an article to a piece of masonry, even if the hole widens through the formation of cracks.

In the invention, the function of the peg is to compensate for the clearance in the sleeve, the clearance existing in order to allow the simultaneous push-fitting of a plurality of pegs into a plurality of sleeves, the pegs and sleeves being part of an inertial unit and a rack, for fixation of the inertial unit to the rack.

The application considerations in the function of the elements are essential, because:

- firstly, one skilled in the art would not have been tempted to search into nail literature to solve in problem of fixing an inertial unit to a rack;

- secondly, even if he/she had done so, the teaching of Fisher would not have helped him/her in solving the alignment problem between a plurality of pegs and sleeves of an inertial unit and a rack, in order to get a better precision of the fixation of the inertial unit, so that computing data therefrom is more precise in order to get a better information on the position of a craft.

Anyway, the structure of Fisher's nail does not permit that nail to fix an inertial unit to a rack. The inertial unit is push-fitted into the rack, while Fisher's nail has to be hammered.

Applicant urges that the claimed invention relates to the fixation of an inertial unit to a rack, and solves the problem of alignment linked to simultaneous push-fitting of the pegs into the sleeves of the inertial unit and of the rack.

Fisher discloses a nail for fixing an article to a piece of masonry, comprising an expandable portion for improving its clamping action, even if the hole widens.

Takahashi discloses a clip for fixing two panels; a plurality of clips may be independently introduced into the panels, but this is of little importance here.

A combination of Fisher and Takahashi was not suggested to the one skilled in the art, nor does it lead to implement the claimed invention.

Applicant sincerely believes that all of the present claims are in condition for allowance. Early and favorable action is earnestly solicited.

AUTHORIZATION

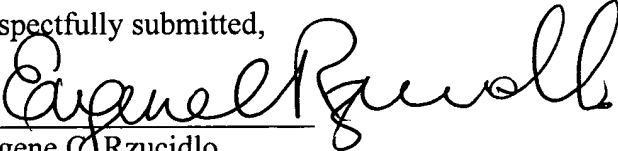
If the Examiner believes that issues may be resolved by telephone interview, the Examiner is respectfully urged to telephone the undersigned at (212) 801-2146. The undersigned may also be contacted by e-mail at ecr@gtlaw.com.

No additional fee is believed to be necessary. The Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment to Deposit Account No. 50-1561.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 50-1561.

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By: Respectfully submitted,


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